2D Single Use Bioprocess Bags

- Fluid handling containers
- Customized for your requirements

Parker extends its bioprocess container line with integrated fluid-handling bags designed for durability and purity.

The 2D Bioprocess Bag is designed to seamlessly integrate with the rest of your process, whether it is going from media prep to cell culture, or ultrafiltration to final fill. Each bag offers safe handling of biopharmaceutical liquids to streamline your manufacturing productivity by delivering reliable biocompatibility, chemical compatibility, barrier and strength properties, as well as temperature resistance.

The bags are offered in sizes ranging from 50ml to 50L. The multi-layer film for the 2D Bioprocess Bag is made of an internal LDPE (Low Density Polyethylene) film, and the external layer is made of a LLDPE film (Lineal Low Density Polyethylene) film. All film material is free of animal derived components.

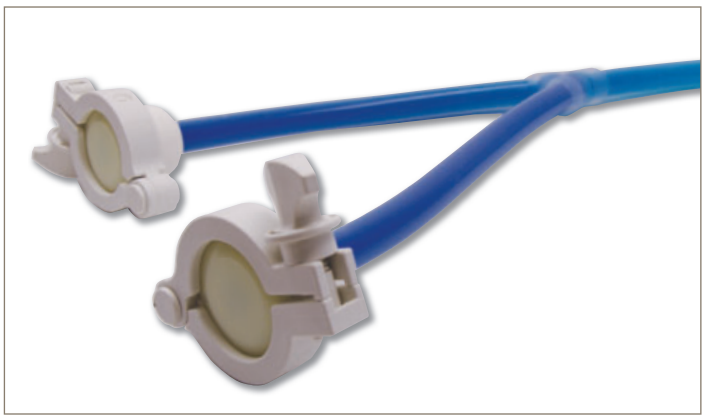
The 2D Bioprocess Bags are ideal in bioprocessing applications for the containment of sterile media, cell cultures, sera, buffers, and reagents.

Features and Benefits

- Customizable geometries such as hanging bags & pillow bags
- A range of ports are available from $^{1}/_{8}$" to 1"
- Single-side, double-sides and TC port options
- Silicone or TPE tubing with molded junctions and sanitary fittings
- Easy integration with Parker filters, sensors, and pumping systems
- Increases productivity, reduces operational costs, and mitigates containment risk
- Manufactured in Class 7 Clean Room

Ideal for use in peristaltic pumps and molded assemblies

mitos-P is the preferred platinum-cured silicone tubing for use in peristaltic pumps and molded assemblies because of its consistency in dimensions. This consistency delivers optimum performance in both applications by providing steady flow rates during pumping and by ensuring better bonding during molding, giving greater integrity to the assembly.



Purity

USP Class VI
LAL testing
Systemic toxicity testing
Intracutaneous reactivity testing
Muscle implantation testing

Componment Compatibility

Peristaltic pumps
Filters
Sampling systems
Sensors

Automated System Integration

SciLog TFF & NFF
SciLog Filter & Dispense
SciLog Inline Dilution (ILD)
SciLog Cryobag Filler

Film Specifications

DuraPure film
Outer layer film
Property test protocol average values

- Material: Lineal low density polyethylene (LLDPE)
- Physical properties:
  - Specific gravity: ASTM D-792 0.96
- Film strength:
  - Tensile Strength: ASTM D-882 3,100 psi
  - Elongation: ASTM D-882 >650%
  - Elastic Modulus: ASTM D-882 1,100 psi
  - Tear Resistance: ASTM D-1004 550 lbf/in
  - Puncture Resistance: FTMS 101B 22.4 lbf
- Barrier:
  - Water vapor transmission rate: ASTM E-96-80 0.11 g / (100 in^2*day)
  - Oxygen permeability: ASTM D-3985 0.28 cm^3 / (100 in^2*day*atm)
  - Carbon dioxide permeability: ASTM D-1434 0.58 cm^3 / (100 in^2*day*atm)

Inner layer film
Property test protocol average values

- Material: Low density polyethylene (LDPE)
- Physical properties:
  - Film Thickness: N/A 4 mil
- Film strength:
  - Tensile Strength: ASTM D-882 2,900 psi
  - Elongation: ASTM D-882 400%
  - Elastic Modulus: ASTM D-882 25,000 psi

DuraPure C93 film

- Material:
  The product contact layer is ultra low density polyethylene (ULDPE) and the gas barrier layer is polyethylene vinyl acetate copolymers (EVOH)
- Physical properties:
  - Film Thickness: N/A 0.325mm
  - Specific gravity: ASTM D-792 0.9 g/cm^3
- Film Strength
  - Tensile Strength: ASTM D-882 13.5 MPa
  - Elongation: ASTM D-882 290%
  - Elastic Modulus: ASTM D-882 360 MPa
- Barrier
  - Water vapor transmission rate: ASTM F-1249 0.33 g/(m^2*day)
  - Oxygen permeability: ASTM D-3985 <0.05 cm^3/(m^2*day*atm)
  - Carbon dioxide permeability: ASTM F-2476 <0.02 cm^3/(m^2*day*atm)

klave-it

- Material: Kynar® PVDF film
- Fittings: All standard industry connections
- Working Temp. Range: -20°C (-4°F) to +80°C (176°F)
- Physical Propoerties:
  - Elongation at Break (%:) ASTM D-638 50-200
  - Shore Hardness: ASTM D-2240 65-70 Shore D
  - Specific Gravity: ASTM D-792 1.76-1.79
  - Tensile Break Strength: (psi) ASTM D-638 2,500-5,000
- Sterilization
  - Gamma Irradiation: Maximum of 50 kGy
  - Autoclave: 1 bar (14.5 psi) @ 121°C (250°F)
- Barrier
  - Oxygen Permeability: ASTM D-3985 3.8-4.6 x 10^{-6} g/100 in^2/day
  - Carbon Dioxide Permeability: ASTM D-1434 2.3 x 10^{-5} cm^3/100 in^2/day
  - Water Vapor Transmission Rate: ASTM E96-80 4.2 x 10^{-6} cm^3/100 in^2/day
- Certified Standard of Compliance
  - USP Class VI testing
  - LAL testing
  - Systematic toxicity testing

Customizable Geometries

Parker technologies can be combined to produce integrated solutions that will speed up development times, increase efficiency and safety, and guarantee reproducible product quality.



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